

ABSTRACT

A fuel injector having an integrated spark plug is provided, the fuel injector providing direct injection of fuel into a combustion chamber of an internal combustion engine, and the spark plug for igniting the fuel injected into the combustion chamber. Also provided is a spark-plug insulator that insulates a first electrode and a second electrode which is set apart from the first electrode by a spark gap, the fuel injector and the spark-plug insulator of the spark plug being arranged in a shared housing. The spark gap has a width of 50 to 300 μm and is disposed in front of the fuel injector at a distance of 3 to 10 mm.